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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 10/068,883 | 02/11/2002 | Troy Alexander Shahoumian | 10019765-1 | 1419 |

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

NGUYEN, HANH N

ART UNIT PAPER NUMBER

2668

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/068,883 | Applicant(s) SHAHOUMIAN ET AL. | |
| | Examiner Hanh Nguyen | Art Unit 2668 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 02/11/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, 7, 10, 11, 15 and 16 are rejected under 35 USC 103(a) as being unpatentable over Laursen (Pat. 6728807) in view of the Kanuri (Pat. 6,934,260 B1).

In claims 1 and 10, Laursen discloses an excess-port network switch (fig.1, network switch 2) comprising: a plurality of ports configured to receive and transmit data (a plurality of ports 6a-6m bidirectly communicating data via link 18 to network 20, col.1, lines 45-50); wherein each port is adapted to have a respective configured throughput (each port has a predetermined bandwidth of two inputs 16 and two outputs 14, see col.1, lines 60-55); and a switch fabric (switch fabric 8a, fig.1) configured to route said data between said plurality of ports and also configured to have a predetermined throughput, wherein said predetermined throughput is less than a total of said respective configured throughputs of said plurality of ports (fig.2, switch fabric 8a provides bandwidth support for half of input connections 16 and output connections 14 connected to all ports 6a-6h). See col.2, lines 20-30). Alternatively, the switch fabric 8a may be coupled to all input connections 16 and output connections 14 of a subset of ports 6e-6h; and the remaining ports 6a-6d are disabled (switch fabric configured to support a smaller number of ports in a network switch, col.2, lines 30-44).

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However, as specified in specification, page 6, the configured throughput of the port is such as wire speed of protocol (Fibre channel, Ethernet 802.3, etc.) and project throughput is user's speed. In order to use the switch fabric of Laursen configured for supporting the wire speed of protocol at a defined speed, Kanuri discloses in fig.1, a switch 12 comprises multiple ports 20a-20d, each transmits and receives data from user station 14 across 10/100 Mbps PHY transceiver (project throughput) according to IEEE 802.3 protocol (configured throuput). See col.3, lines 33-38. The motivation of the combination is to have a low cost switch and a defined bandwidth supported by the fabric.

In claims 2, 6, 11 and 15, as disclosed in the rejected of claim 1, Laursen discloses the switch fabric 8a may be coupled to all input connections 16 and output connections 14 of a subset of ports 6e-6h; and the remaining ports 6a-6d are disabled (switch fabric configured to enable and disable at least one port of said plurality of ports). col.2, lines 30-44. Laursen does not disclose a controller configured to interface with said plurality of ports and a switch fabric. The Official notice is taken that interfacing a controler with plurality of ports and a switch fabric in a network switch is well-known and expected in the art. It would have been obvious to have a controller interfacing with ports in a network switch of Laursen to control operations such as route packet between ports.

In claims 7 and 16, as disclosed in the the rejection of claim 1, Laursen discloses a subset of ports 6e-6h which is a zone supported by the switch fabric.

Claims 5, 14 are rejected under 35 USC 103(a) as being unpatentable over Laursen (Pat. 6728807) in view of the Kanuri (Pat. 6,934,260 B1) in view of Hoogenboom et al. (Pat. 6,934,253 B2) .

In claims 5 and 14, as disclosed in the rejected of claim 1, Laursen discloses the switch fabric 8a may be coupled to all input connections 16 and output connections 14 of a subset of ports 6e-6h; and the remaining ports 6a-6d are disabled (switch fabric configured to enable and disable at least one port of said plurality of ports). col.2, lines 30-44. Laursen does not disclose a data packet traffic rate being compared to a threshold. Hoogenboom et al. discloses in fig. 7a that at step 710, output control 350 (fig.3) compares packet values with selected maximum values to determine if a maximum value has been exceeded (data packet traffic rate being compared to a threshold). See col.5, lines 30-45. Therefore, it would have been obvious to apply the congestion control method of Hoogenboom et al. into Laursen in order to disable ports that creates congestion at the output buffer.

Claims 3, 4, 8, 9, 12, 13, 17 and 18 are rejected under 35 USC 103(a) as being unpatentable over Laursen (Pat. 6728807) in view of the Kanuri (Pat. 6,934,260 B1), and further in view of McMillen et al. (US Pat. 5,872,904).

In claims 3, 4, 8, 9, 12, 13, 17 and 18, Laursen does not disclose the ports are configured to disable itself in response to an error condition, wherein the error condition is an internal temperature of at least one port exceeding a temperature limit. McMillen et al. discloses a switch nodes 16 coupled to ports 20 (fig. 1A). When the switch node 16 detects errors, ports 20 are disabled (col.24, lines 50-65 & col.6, lines 5-15). Further, the errors includes parity error, data over run, forward channel loss....etc..(see col.12, lines 10-15). Eventhough Mc Millen does not disclose the error is an internal temperature of the port, the Official notice is taken that the temperature of a port is considered as an error if exceeding the temperature limit is well-known in the art. Further, the error is detected by using a temepreature sensor in the switch which is

well-known in the art. It would have been obvious to have a temperature sensor in the switch in order to power off the switch when the temperature is over limit.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ma et al. (Pat. 6954463 B1) discloses Distributed packet processing architecture for network access services.

Momirov (pat. 6,320,859 B1) discloses early availability of forwarding control information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan, can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

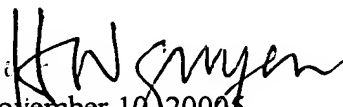
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Hanh Nguyen


November 10, 2000

**HANH NGUYEN
PRIMARY EXAMINER**